

CLAIMS

What is claimed is:

✓ 1. A method of managing communication resources between nodes of a network, involving both dynamic and static assignment of communication time slots, the method comprising:

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establishing a network comprising a plurality of dynamic nodes, network communication being accomplished via assignment of time slots of a time multiplex structure, said plurality of dynamic nodes participating in a dynamic assignment protocol, each of said plurality of dynamic nodes being capable of assigning itself a time slot from available time slots of said time multiplex structure, said network further comprising at least one static node not participating in the dynamic assignment protocol; and

pre-assigning a time slot in said time multiplex structure to said at least one static node.

2. The method of claim 1, further comprising the step of:

pre-assigning a time slot in said time multiplex structure to at least one dynamic node of said plurality of dynamic nodes.

~~3. The method of claim 2, wherein said at least one dynamic node of said plurality of dynamic nodes is a surrogate node coordinating communication between said at least one static node and said plurality of dynamic nodes.~~

✓ 4. The method of claim 1, further comprising a plurality of static nodes.

✓ 5. The method of claim 1, wherein said at least one static node is not capable of participating in the dynamic assignment protocol.

6. The method of claim 1, wherein said at least one static node does not participate in the dynamic assignment protocol because it is critical to network operations.

✓ 7. The method of claim 1, wherein said time multiplex structure comprises a time division multiple access protocol.

~ 8. The method of claim 1, further comprising a frequency division multiple access protocol operating in conjunction with said time multiplex structure.

9. The method of claim 1, wherein said dynamic assignment protocol comprises a unifying slot assignment protocol.

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✓ ~~10.~~ A communication system, comprising:

a network of nodes, each node being capable of communication during time slots of a time multiplex structure;

a plurality of nodes of said network of nodes participating in a dynamic assignment protocol, each node of said plurality of nodes being capable of assigning itself a time slot from available time slots of said time multiplex structure; and

at least one static node, said at least one static node belonging to said network of nodes;

wherein said at least one static node is pre-assigned a time slot in a frame of said time multiplex structure.

11. The communication system according to claim 10, wherein said at least one static node is a node critical to operation of said network of nodes.

✓ 12. The communication system according to claim 10, wherein said at least one static node is a node not capable of participating in said dynamic assignment protocol.

13. The communication system according to claim 10, wherein said dynamic assignment protocol comprises a unifying slot assignment protocol.

✓ 14. The communication system according to claim 10, wherein said time multiplex structure comprises a time division multiple access structure.

✓ 15. The communication system according to claim 10, wherein said network of nodes further comprises a frequency division multiple access structure integrated with said time multiplex structure.

☆ 16. The communication system according to claim 10, further comprising a dynamic node participating in said dynamic assignment protocol, said dynamic node having a pre-assigned broadcast time slot in a frame of said time multiplex structure.

J 17. The communication system according to claim 16, wherein said dynamic node serves as a surrogate for said at least one static node.

✓ 18. A communication system, comprising:

a network of nodes, each node being capable of communication during time slots of a time multiplex structure;

first dynamic node means for participating in a dynamic assignment protocol, said first dynamic node means being capable of assigning itself a time slot from available time slots of said time multiplex structure, said first dynamic node means being a member of said network of nodes; and

static node means for participating in the network, said static node means belonging to said network of nodes;

wherein said static node means is pre-assigned a time slot in a frame of said time multiplex structure.

↓ 19. The communication system according to claim 18, further comprising second dynamic node means for participating in said dynamic assignment protocol, said second dynamic node means having a pre-assigned time slot in a frame of said time multiplex structure.

★ 20. The communication system according to claim 19, wherein said second dynamic node means serves as a surrogate for said static node means.